



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/646,846

08/25/2003

Jeffrey M. Brown

87326.3920

1451

7590

04/04/2006

BAKER & HOSTETLER LLP  
Washington Square, Suite 1100  
1050 Connecticut Avenue, N.W.  
Washington, DC 20036

EXAMINER

YENKE, BRIAN P

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/646,846

Applicant(s)

BROWN ET AL.

Examiner

BRIAN P. YENKE

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09 Mar 05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. Claims 17-18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "identifying causes " in claim 17 is a relative statement which renders the claim indefinite. The statement is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The examiner suggests using language which points out/distinctively recites how the "causes" are identified.

The term "predicting means " in claim 18 is a relative statement, which renders the claim indefinite. The statement is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A person shall be entitled to a patent unless –

Claims 1, 4, 7-8, 13-16 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Rittman, US 6,687,632.

In considering claims 1, 7-8, 13-16 and 19-22

Rittman discloses a system which tests the CATV systems transmission by generating/transmitting quasi-random data along transmission path (22) which is recovered and analyzed for ghosts/reflections using oscilloscope 24 and PC using MATLAB 40 (Fig 5). As shown in the figure the system passes RF signals with the generated random data where the signals are analyzed at a location near the transmitted end in order to eliminate any undesirable equalization by the receiver/set-top box. Regarding the time intervals, Rittman discloses the autocorrelation of the transmitted signal with the reflected signal (col 5. line 5-15).

In considering claim 4,

Rittman discloses that the data corresponding to the reflections/ghosts of the transmitted data is recovered on digital oscilloscope 24 and then transferred to a MatLab program running on a PC 40 for analysis.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2a, Claims 2-3, 5-6 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Rittman, US 6,687,632 in view of AAPA (Applicant's Admitted Prior Art).

In considering claims 2-3, 5-6 and 9,

Rittman does not explicitly recite the conventional standard of transmitting a test signal (GCR)/telemetry pattern on a specific horizontal line in the NTSC stream.

However, AAPA discloses that this is a conventional feature in the art. As stated in AAPA the receiver analyzes this information, whereas the invention is at the transmission side.

Thus since Rittman discloses the concept/feature of analyzing a transmission side for reflection it would have been clearly obvious to one of ordinary skill in the art to implement the conventional testing sequence as done via AAPA which would allow the system of Rittman to test conventional transmitted NTSC signals with GCR/telemetry signals for degradation/reflection which can be analyzed by the broadcaster/transmitter in order to provide a quality signal to the viewer.

2b. Claims 10-12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rittman, US 6,687,632.

In considering claims 10-12 and 17-18

However, Rittman does not explicitly recite a system that analyzes the physical condition of the transmission system nor generating warning signal if the system exceeds an established threshold.

Ritman does disclose the monitoring/analyzing of the transmission system by correlating the reflections and determining a time delay in ascertaining the round trip distance to the impedance mismatch of the system. Ritman also discloses the monitoring is performed on the transmission end in determining the performance of the transmitter/system.

The analysis of the physical condition as well as the identifying causes, prediction changes (i.e. trends) and the generation of an alarm in a transmission system is conventional in the art, since the degradation/reduction of quality of a signal (i.e. TV signal) to viewers is immediately noticed on the display and hence broadcasters/transmitters employ a variety of systems/equipment to alert the possibility/reality of such degradation, thus the examiner takes "OFFICIAL NOTICE" regarding as such, since it would have been clearly obvious for a transmission system which analyzes the quality of such signals to utilize such features for the advantages as noted above.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—see newly cited references on attached form PTO-892.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, David L. Ometz, can be reached at (571)272-7593.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(571)-273-8300**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is  
(703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information

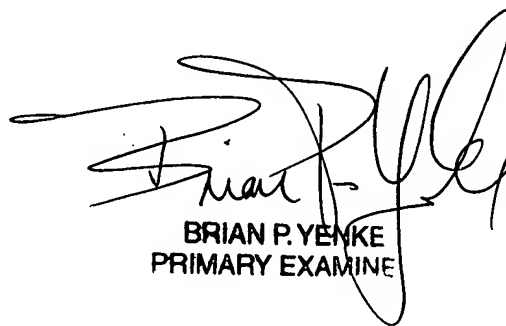
Retrieval (PAIR) and the Electronic Filing System (EFS).

PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y

31 March 2006



BRIAN P. YENKE  
PRIMARY EXAMINE